

# ***MANAGEMENT PROBLEMS AND OPPORTUNITIES***

The Platte River Basin Plan was developed to address objectives provided in the Missouri Department of Conservation Strategic Plan, Fisheries Division Operational Plan (FY 1996-2000), Stream Areas Program Plan, and the Stream Access Acquisition Plan. These plans indicate areas of future expanded resource management, public awareness, and access needs. Major areas of concern in the Platte River basin include water quality, riparian and aquatic habitat, aquatic communities, and recreational use. All goals are of equal importance, however, objectives are listed in order of priority under each goal. This plan only includes those items that the Missouri Department of Conservation can reasonably attain or influence during the next 25 years. Completion of these objectives will depend upon their status in overall Regional and Divisional priorities, as well as the availability of personnel and funds.

## **GOAL 1: IMPROVE WATER QUALITY AND MAINTAIN OR IMPROVE WATER QUANTITY IN THE PLATTE RIVER BASIN SO THAT ALL STREAMS ARE CAPABLE OF SUPPORTING NATIVE AQUATIC COMMUNITIES.**

**Status:** Streams within the Platte River basin suffer from several water quality problems associated with point and non-point source pollution. Sewage effluent from several waste water treatment facilities is the primary point source pollutant within the basin. Turbidity and sedimentation from erosion, and organic runoff from livestock operations are non-point sources of pollution in the basin. The Conservation Reserve Program (CRP) has reduced the acreage of highly erodible soil that once was in row crop production within the basin. However, most contracts will expire by 1998, and this could result in this land reverting to row crop production. In addition, there is increased interest in construction of concentrated animal feeding operations within the basin that could result in an increase in livestock waste runoff.

**Objective 1.1:** Water quality standards met in all streams within the basin.

**Strategy:** Enforcing existing state and federal water quality regulations will help reduce the number of violations that currently occur. Providing assistance in gathering additional water quality data within the basin will provide more information about stream health throughout the entire basin. This information can be used to provide justification for further protection and increased enforcement.

- ! Review NPDES, 404, and other permits and provide recommendations so that compliance with water quality standards are maintained within the basin.
- ! Collect fish for contaminant analysis for the Missouri Department of Health and cooperate in advising the fishing public on the effects of contaminant levels in fishes within the basin.

- ! Cooperate with other state and federal agencies to investigate fish kill reports and other water quality related problems that are reported in the basin.
- ! Monitor water quality and insure compliance with discharge permits. Most of this work is under the jurisdiction of Missouri Department of Natural Resources, but with training, volunteer groups such as Stream Teams could assist with water quality monitoring and be strong advocates for water quality throughout the basin.
- ! Inform the public of water quality problems (i.e., sedimentation, livestock runoff, and sewage effluent) affecting streams in the basin through media and personal contacts, literature development and distribution, and special or educational events such as National Hunting and Fishing Day.

**Objective 1.2:** Maintain base flows within the Platte River basin at or above current levels within the constraints imposed by natural seasonal variations in precipitation.

**Strategy:** Work closely with agricultural agencies to address concerns related to adequate streamflows within the basin, and work with state and local governments on laws and regulations pertaining to maintenance of base flows.

- ! Support the development of a Missouri water law that addresses the quantity of water in Missouri streams.
- ! Provide technical assistance for SALT and EARTH projects as requested by Soil and Water Conservation Districts so base flows can be maintained.
- ! Inform the public of water quantity problems affecting streams in the basin through media and personal contacts, literature development and distribution, and special or educational events such as St. Joseph Sport Show and National Hunting and Fishing Day.

## **GOAL 2: IMPROVE OR MAINTAIN RIPARIAN AND AQUATIC HABITATS IN THE PLATTE RIVER BASIN.**

**Status:** Channelization and levees negatively affect riparian and aquatic habitats through increased stream bed and bank erosion, sedimentation, and by reducing wooded corridors, instream cover, and pool/riffle habitat complexes. Due to past channelization, some stream channels have down-cut below the root systems of trees. Thus, the few trees that are present provide little, if any, streambank stabilization. In addition, landowners in the basin are reluctant to restore 100 feet wide vegetated corridors along each streambank due to the loss in row crop acreage.

**Objective 2.1:** Eliminate additional channelization, re-channelization, or levee construction projects within the Platte River basin.

**Strategy:** Preventing future channel alterations will require a combination of watchdog activities that will facilitate enforcement of current laws and educational programs so in the future, the need for law enforcement action will be minimized.

- ! Review all 404 and other permits within the basin and provide comments on these applications to reduce impacts of channelization and levee construction.
- ! Cooperate with MDC Outreach and Education Division in presenting materials related to stream ecology and effects of channelization to elementary and/or secondary school teachers and students within the basin.

**Objective 2.2:** Inform landowners within the Platte River basin about good stream stewardship practices and the importance of riparian corridors. Efforts to maintain and improve riparian conditions will be concentrated along Castile Creek and portions of Honey Creek, both of which were identified as possessing unique habitat within the basin.

**Strategy:** Advertising and promoting stream incentive programs, installing and maintaining demonstration projects, and providing educational opportunities regarding stream stewardship will allow landowners to be more aware of the reasons and techniques for protecting streams. Promoting stream incentive programs for improving riparian habitats will likely encourage more landowners to participate.

- ! Cooperate with Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), and University Extension personnel to promote cost share programs that include streambank and streambed stabilization, alternate watering sources, excluding livestock access, and establishing and maintaining adequate stream corridors.
- ! Provide recommendations to all landowners who request assistance that are willing to establish and maintain adequate stream corridors.
- ! Provide stream management workshops for NRCS and University Extension staff every five years for those people who have responsibilities for agriculture programs within the Platte River basin.
- ! Cooperate with NRCS and Soil and Water Conservation Districts to establish SALT and EARTH projects within the basin.
- ! Establish stream management demonstration sites within the basin.
- ! Promote sound land management practices that enhance stream quality through landowner workshops and demonstration site tours within the basin.
- ! Cooperate with MDC Outreach and Education Division in using streams within the basin for aquatic education programs.

### **GOAL 3: MAINTAIN DIVERSE AND ABUNDANT POPULATIONS OF NATIVE AQUATIC ORGANISMS WHILE SUPPORTING ANGLER DEMANDS FOR QUALITY FISHING.**

**Status:** A comprehensive survey of the fishes inhabiting the Platte River basin is needed in unsampled, or inadequately sampled streams. Several species of fish desirable to anglers are found in the basin. Catfish (channel, blue, and flathead) are the most sought after species, but sufficient samples to assess their populations are lacking. Some invertebrate sampling has been conducted, but a comprehensive study across the basin has not been conducted.

**Objective 3.1:** Assess and maintain native non-game fish populations and aquatic invertebrates at or above present levels throughout the basin.

**Strategy:** Assess the status of fish and invertebrate communities throughout the basin through a cooperative effort between MDNR, MDC, Iowa DNR, Missouri Western State College, and Northwest Missouri State University. Achieving habitat objectives within the basin should ensure maintenance and improvement of aquatic communities within the basin. To determine if there are changes in aquatic communities within the basin, periodic surveys will need to be conducted with directed effort toward collecting uncommon species within the basin.

- ! Develop standard sampling techniques for assessing fish and aquatic invertebrate communities, including use of indicator species.
- ! Implement a sampling program that monitors diversity and abundance of aquatic communities throughout the basin in cooperation with MDNR, Iowa DNR, Missouri Western State College, and Northwest Missouri State University. Through training, Stream Teams could provide additional information on aquatic communities within the basin.
- ! Enforcement of regulations pertaining to water quality and quantity, enhancement of riparian corridors, and improvement of instream habitat will help protect and enhance native aquatic communities within the basin.

**Objective 3.2:** Evaluate sportfish populations within basin streams and provide recommendations for maintenance and improvement of these populations to a level that satisfies the angling public.

**Strategy:** Assess the quality of sportfish populations and provide recommendations for the enhancement of populations through regulations, habitat improvement, or stocking. Information on angler use, harvest, or attitudes within basin streams has not been collected since the early 1970's. This information would be of utility in managing sportfish populations within the basin, and it would provide guidance for future management within the basin.

- ! Develop standardized sampling protocol for target species (primarily catfish), and implement monitoring program to collect trend data on sportfish populations within the basin that will be used to evaluate and manage these populations.
- ! Identify critical habitats for catfish (primarily channel catfish and flathead catfish) at all life stages and maintain or enhance these areas as needed to increase production.
- ! Improve populations of sportfish through regulations and habitat improvements once population objectives have been determined.
- ! Conduct a creel survey to determine angler use, harvest, and attitudes within the basin. Compare these results with previous study conducted in the early 1970's.
- ! Increase awareness of the recreational potential of fishes other than sportfish such as common carp, buffalo, gar, and freshwater drum through articles in local newspapers, outdoor magazines, and/or a possible *Missouri Conservationist* magazine article.

#### **GOAL 4: INCREASE PUBLIC APPRECIATION FOR STREAM RESOURCES IN THE PLATTE RIVER BASIN.**

**Status:** Most citizens within the basin have a lack of understanding and appreciation for the importance of stream resources in the region. There is little regard for the well-being of streams within the basin.

**Objective 4.1:** Increase the current level of public understanding of local stream resources and proper stream management practices.

**Strategy:** Increasing public awareness and education of stream values should result in improvements in the level of appreciation local stream resources now receive. Enhanced awareness of streams within the basin should result in heightened concern about stream quality within the basin.

- ! Promote formation of Stream Teams within the basin through contacts with local civic organizations and schools.
- ! Locate local streams within the basin that are near schools that also possess adequate access for field trips.
- ! Cooperate with Missouri Western State College, Northwest Missouri State University, and MDC Outreach and Education Division in using local streams in the basin for aquatic education programs.
- ! Promote the values of stream resources within the basin through local newspaper articles, radio, and television.

## **GOAL 5: INCREASE RECREATIONAL USE OF STREAMS IN THE PLATTE RIVER BASIN.**

**Status:** Past recreational use on the lower Platte River was dominated by fishing and hunting activities. However, 38% of all trips were not related to hunting or fishing, and this indicated the needs of this group should be addressed. This study was conducted more than 25 years ago, and current recreational use within the basin is unknown. Turbid water and intensively farmed land are not aesthetically pleasing to most, and this limits the amount of recreational float trips in the basin. There are still some areas in the basin that are scenic, and with restoration of wooded corridors and public awareness of the resource, increases in non-consumptive use are possible.

**Objective 5.1:** Increase recreational opportunities on and along streams within the basin.

**Strategy:** The MDC strategic plan calls for an increase in stream use to accommodate an overall increase in the level of use as construction of new reservoirs declines. Public satisfaction with existing recreational opportunities on and along streams within the basin needs to be determined. In addition, future acquisition sites, facilities, and recreational opportunities should be identified.

- ! Conduct creel, recreational use, and needs survey periodically (every 10 years) to identify needs of the public.
- ! Continue acquisition and development of stream access and frontage sites within the basin based on Stream Areas Program Strategic Plan and recommendations from MDC Fisheries staff in the Northwest and Kansas City Regions.
- ! Increase recreational use at current MDC sites within the basin through implementation of management plans for each area.

**Objective 5.2:** All potential recreationists have access to information on stream use opportunities within the basin.

**Strategy:** It is assumed that the public is not fully aware of the recreational opportunities that currently exist on or along streams within the basin. Publicity should increase the awareness and use of opportunities within the basin. This in turn should lead to an appreciation of this resource and foster an opinion that the resource is worth protecting.

- ! Publicize recreational opportunities within the Platte River basin in local newspaper, radio, and television programs, and the MDC's web page.
- ! Include information from the Platte River basin in publications that promote hunting, fishing, floating, hiking, and other activities related to stream resources.
- ! Maintain a stream emphasis at public events such as the St. Joseph Sport Show and the National Hunting and Fishing Day.